

Amendments to the Claims

1-26. (canceled)

27. (new) A method for treating a condition of a subject comprising the steps of:

monitoring a cyclic intrinsically varying physiological activity of the subject;
inducing the subject to perform gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject; and
engaging the subject in operating a hand-operated device to perform a fine motor task.

28. (new) The method of claim 27, wherein the cyclic intrinsically varying physiological activity of the subject is a cyclic intrinsically varying physiological activity selected from the group consisting of: cardiac activity; pulmonary activity; pulse; and brain wave activity.

29. (new) The method of claim 28, wherein inducing the subject to make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject comprises:

placing the subject in contact with a movable surface;
operating an actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject thereby inducing the subject to

make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject.

30. (new) The method of claim 29, wherein the method for treating the subject comprises a method for treating a learning deficit of the subject selected from the group consisting of Dyspraxia, ADD, ADHD and Dyslexia.

31. (new) The method of claim 30, wherein the step of engaging the subject in operating a hand-operated device to perform a task further comprises:
inducing the subject to attempt to copy a design with the hand-operated device.

32. (new) The method of claim 31, further comprising monitoring the subject operating the hand-operated device to perform the task to evaluate the performance of the fine motor task by the subject.

33. (new) The method of claim 32, wherein the hand-operated device comprises an illuminating means and wherein the method further comprises the step of:
operating the illuminating means such that a quality of the illumination is changed in correlation to a cyclic intrinsically varying physiological activity of the subject.

34. (new) The method of claim 33, further comprising assessing a stress value V from a physiological activity of the subject; and ceasing operating the actuator to move the surface if V passes a threshold T .

35. (new) The method of claim 34, wherein the design lacks meaning content.

36. (new) The method of claim 35, wherein the method for treating the subject comprises a method for treating Dyslexia.

37. (new) The method of claim 28, for treating a subject having a parasympathetic control mechanism and a sympathetic control mechanism and a dynamic balance between the parasympathetic control mechanism and the sympathetic control mechanism, wherein the method comprises operating the actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject to induce a change in the dynamic balance.

38. (new) The method of claim 37, wherein inducing the subject to make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject comprises:

placing the subject in contact with a movable surface; and

operating an actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject thereby inducing the subject to make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject.

39. (new) The method of claim 38, further comprising assessing a stress value V from a physiological activity of the subject; and ceasing operating the actuator to move the surface if V passes a threshold T.

40. (new) The method of claim 39, for treating a subject having a parasympathetic control mechanism activity, wherein the method comprises operating the actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject to improve the parasympathetic control mechanism activity.

41. (new) The method of claim 40, wherein the method for treating the subject comprises a method for treating a learning deficit of the subject selected from the group consisting of Dyspraxia, ADD, ADHD and Dyslexia.

42. (new) The method of claim 29, wherein the step of operating the actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject further comprises operating the actuator to move the movable surface only during a particular subcycle of the cyclic intrinsically varying physiological activity.

43. (new) The method of claim 42, wherein inducing the subject to make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject comprises:

placing the subject in contact with a movable surface; and

operating an actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject thereby inducing the subject to make gross motor movements in correlation with the cyclic intrinsically varying physiological activity of the subject.

44. (new) The method of claim 43, further comprising assessing a stress value V from a physiological activity of the subject; and ceasing operating the actuator to move the surface if V passes a threshold T.

45. (new) The method of claim 44, wherein the cyclic intrinsically varying physiological activity of the subject is cardiac activity and wherein the step of operating the actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity of the subject further comprises operating the actuator to move the movable surface during any one only of the diastolic phase and the systolic phase.

46. (new) The method of claim 45, wherein the method for treating the subject comprises a method for treating a learning deficit of the subject selected from the group consisting of Dyspraxia, ADD, ADHD and Dyslexia.

47. (new) Apparatus for treating a subject wherein the apparatus comprises:
a physiological sensor module to monitor a cyclic intrinsically varying physiological activity of the subject;
a moving surface to support the subject;

an actuator for moving the moving surface;
a hand-operated device for operation by the subject; and
a program module linked to the actuator and the physiological sensor module
wherein the program module causes the mechanical actuator to move the moving surface
in correlation with the cyclic intrinsically varying physiological activity of the subject
whereby the subject is prompted to make gross-motor movements in correlation with the
cyclic intrinsically varying physiological activity of the subject.

48. (new) The apparatus of claim 47, wherein the physiological sensor module comprises a sensor from the group consisting of: pulse sensor; cardiac sensor; pulmonary activity sensor; and brain wave sensor.

49. (new) The apparatus of claim 48, further comprising a design for the subject to attempt to follow with the hand-operated device.

50. (new) The apparatus of claim 49, further comprising a position monitoring device which monitors the hand-operated device in order to assess a level of performance of the task by the subject.

51. (new) The apparatus of claim 50, further comprising a stress monitor which calculates a stress value V as a function of the cyclic intrinsically varying physiological activity of the subject and terminates the moving of the surface if V passes a threshold T .

52. (new) The apparatus of claim 51, wherein the apparatus treats a learning deficit of the subject selected from the group consisting of Dyspraxia, ADD, ADHD and Dyslexia.

53. (new) The apparatus of claim 52, wherein the design lacks meaning content.

54. (new) The apparatus of claim 53, for treating a patient having a cardiac cycle wherein the program module operates the actuator to move the movable surface during any one only of the diastolic phase and the systolic phase.

55. (new) The apparatus of claim 54, wherein the apparatus treats Dyslexia.

56. (new) The apparatus of claim 55, wherein the position measuring device comprises a digitizing surface.

57. (new) The apparatus of claim 48, for treating a subject having a parasympathetic control mechanism and a sympathetic control mechanism and a dynamic balance between the parasympathetic control mechanism and the sympathetic control mechanism wherein the program module operates the actuator to induce a change in the dynamic balance of the subject.

58. (new) The apparatus of claim 57, further comprising a stress monitor which calculates a stress value V as a function of the cyclic intrinsically varying

physiological activity of the subject and terminates the moving of the surface if V passes a threshold T.

59. (new) The apparatus of claim 58, further comprising a design for the subject to attempt to follow with the hand-operated device.

60. (new) The apparatus of claim 59, further comprising a position monitoring device which monitors the hand-operated device in order to assess a level of performance of the task by the subject.

61. (new) The apparatus of claim 60, for treating a subject having a parasympathetic control mechanism activity wherein the program module operates the actuator to induce an improvement in the parasympathetic control mechanism activity.

62. (new) The apparatus of claim 48, wherein program module causes the mechanical actuator to move the moving surface in correlation with the cyclic intrinsically varying physiological activity of the subject whereby the subject is prompted to make gross-motor movements during a subcycle of the cyclic intrinsically varying physiological activity of the subject.

63. (new) The apparatus of claim 62, further comprising a stress monitor which calculates a stress value V as a function of the cyclic intrinsically varying physiological activity of the subject and terminates the moving of the surface if V passes

a threshold T.

64. (new) The apparatus of claim 63, further comprising a design for the subject to attempt to follow with the hand-operated device.

65. (new) The apparatus of claim 64, further comprising a position monitoring device which monitors the hand-operated device in order to assess a level of performance of the task by the subject.

66. (new) The apparatus of claim 65, wherein the subcycle is a subcycle selected from the group consisting of: ascending pressure phase, descending pressure phase, alpha wave, beta wave, breathing in, breathing out, systolic phase and diastolic phase.

67. (new) Apparatus for treating a learning deficit of a subject wherein the apparatus comprises:

sensor means for monitoring a cyclic intrinsically varying physiological activity of the subject;

movement means for inducing the subject to make gross-motor movements;

input means for hand operation by the subject; and

program module means linked to the movement means for inducing the subject to move in correlation with the cyclic intrinsically varying physiological activity of the subject.

68. (new) The apparatus of claim 67, wherein the sensor means comprises sensor means for sensing a cyclic intrinsically varying physiological activity selected from the group consisting of: cardiac activity; pulmonary activity; pulse; and brain wave activity.

69. (new) The apparatus of claim 67, further comprising means for instructing the subject to attempt to move the hand-operated device along a defined path.

70. (new) The apparatus of claim 69, further comprising monitor means for measuring movements of the hand-operated device by the subject.

71. (new) The apparatus of claim 70, further comprising means for displaying a design for the subject to attempt to copy with the hand-operated device.

72. (new) The apparatus of claim 71, wherein the movement means comprises:
a movable surface in contact with the subject; and
actuator means for moving the movable surface in correlation with the cyclic intrinsically varying physiological activity.

73. (new) The apparatus of claim 70, wherein the subject has a parasympathetic control mechanism and a sympathetic control mechanism and a dynamic balance between the parasympathetic control mechanism and the sympathetic control mechanism and wherein the program means comprises means for causing the

actuator means to move the movable surface in correlation with the cyclic intrinsically varying physiological activity to induce change in the dynamic balance

74. (new) The apparatus of claim 73, further comprising means for quantitatively assessing a performance level of the subject's attempt to copy the design.

75. (new) The apparatus of claim 74, further comprising illuminating means for providing illumination to the subject which varies in correlation to the variable physiological cyclic activity of the subject.

76. (new) The apparatus of claim 70, wherein the learning deficit of the subject is selected from the group consisting of Dyspraxia, ADD, ADHD and Dyslexia.

77. (new) The apparatus of claim 67, further comprising means for assessing a stress value V of the subject; and ceasing operating the actuator if V passes a threshold T .

78. (new) The apparatus of claim 70, wherein the subject has a parasympathetic control mechanism activity and wherein the program means comprises means for operating the actuator to move the movable surface in correlation with the cyclic intrinsically varying physiological activity to improve the parasympathetic control system activity.

79. (new) The apparatus of claim 78, further comprising means for instructing the subject to attempt to move the hand-operated device along a defined path.

80. (new) The apparatus of claim 79, further comprising monitor means for measuring movements of the hand-operated device by the subject.

81. (new) The apparatus of claim 79, wherein the learning deficit of the subject is Dyslexia.

82. (new) The apparatus of claim 77, wherein the actuator means move the movable surface only during a subcycle of the cyclic intrinsically varying physiological activity.

83. (new) The apparatus of claim 78, further comprising means for instructing the subject to attempt to move the hand-operated device along a defined path.

84. (new) The apparatus of claim 79, further comprising monitor means for measuring movements of the hand-operated device by the subject.

85. (new) The apparatus of claim 79, wherein the learning deficit of the subject is Dyslexia.

86. (new) The apparatus of claim 85, wherein the sensor means comprises means for sensing cardiac activity and wherein the actuator means moves the movable

surface during one phase selected from the group consisting of: breathing in, breathing out, ascending pressure phase, descending pressure phase, alpha, beta, diastolic phase, and systolic phase.